DESIGNING LABOR MARKET INSTITUTIONS

Olivier Blanchard
Massachusetts Institute of Technology

There is fairly wide agreement among economists on what constitutes optimal—or at least good—product market and financial market institutions. There is much less agreement on what constitutes optimal—or at least good—labor market institutions. As a result, the public debate is too often dominated by clichés and slogans. "Get rid of labor market rigidities" is one of the most frequent. Meanwhile, policymakers focus on politically feasible, incremental reforms, with little sense of the ultimate goal.

Economists could play a more useful role here. This is why Jean Tirole and I decided to explore the optimal design of labor market institutions. This paper represents a progress report.[1] It gives a sense of the general architecture we see coming out of our analysis.

It is probably best to start with three warnings. First, our research so far has focused on unemployment insurance and employment protection, which we see as the two pillars of labor market institutions. Many other dimensions are relevant, including minimum wages, negative income taxes, labor laws, and collective bargaining. We have not analyzed these issues in detail, so I only touch on them here. Second, one size does not fit all. The economic principles we derive are quite general, but the specifics are likely to differ across countries, according to income level and institutional development. What may be optimal for Sweden may not be optimal for Chile, for example. Finally, having a sense of the ultimate goal is only half of

what is needed. The other half involves how to go from here to there, how to improve existing institutions. As governments have learned, labor market reforms face many political constraints. These constraints are very relevant, but I ignore them here. Characterizing the goal comes first, and that is the focus of this paper.

1. A BENCHMARK

Let me start with a stark, simplistic benchmark. Consider an economy in which workers are risk averse and firms are risk neutral. Firms hire workers and put them into jobs. All jobs look the same ex ante, that is, they have the same probability distribution. Ex post, productivity differs across jobs. If the productivity of a job is sufficiently low, the firm lays the worker off, and the worker becomes unemployed.

What happens in this economy is straightforward. Firms, which are risk neutral, insure workers, who are risk averse. They pay workers a constant wage, independent of their realized productivity. If they decide to lay some workers off, they pay them unemployment benefits so as to fully insure them against unemployment. (Note that, by offering such insurance to the risk averse workers, firms are able not only to reduce wages, but also to reduce their expected labor costs.)

The payment of unemployment benefits to the workers makes the firms fully internalize the cost of unemployment for the workers they lay off. The decision as to whether to lay off a worker is therefore socially efficient.

Now think of a different way of achieving the same outcome. Suppose that, instead of making payments directly to the workers they lay off, firms make these payments to an unemployment agency. Call these payments unemployment contributions or layoff taxes; the terminology does not matter. Also, let the unemployment agency pay unemployment benefits to the laid-off workers.

This clearly leads to the same outcome as before. By construction, payments from firms to the agency are equal to the payments from the agency to the unemployed. Firms face the same costs as before, so they make the same decisions; workers receive the same payments, so they get the same utility.

Given this equivalence, why introduce such an agency? Why not let firms handle the payments themselves? There is, in fact, a good

reason. I assumed implicitly above that firms could fully insure workers by paying unemployment benefits directly. In reality, individual firms cannot easily provide unemployment insurance to laid-off workers. A one-time payment at the time of the layoff provides very poor insurance against unemployment, since the main source of uncertainty when becoming unemployed is how long one will remain unemployed. A one-time payment offers no insurance against uncertain duration.

Good unemployment insurance therefore requires payments of unemployment benefits over time, conditional on whether the worker is still unemployed and searching for another job. Individual firms are not equipped to do this. Whether a laid-off worker is still unemployed or has found another job is difficult enough for an individual firm to verify. Monitoring the unemployed worker's search effort goes far beyond what a firm can do.

Hence, there is the need for an unemployment agency to check on employment status, monitor search activity, and deliver the benefits to the unemployed. The agency need not be a state agency. The state, however, probably has to be involved, given that it already has much of the infrastructure needed to check, monitor, and distribute benefits.

If the agency pays unemployment benefits to the unemployed over time, how does one ensure that firms still make contributions to the agency equal to what the agency pays to the laid-off workers? This can be achieved in one of two ways. It can be done ex ante: at the time the layoff takes place, firms can pay the expected value of unemployment benefits that the agency will pay to the worker who is laid off. This expected value is likely to depend on the age, skills, and geographic location of the worker, and it may be difficult to assess. This suggests doing it ex post instead, while the worker is unemployed: whenever the unemployment agency sends a benefit check to an unemployed worker, these benefits are charged to the firm that laid that worker off.

1.1 Taking Stock

The purpose of the benchmark was to convey a basic message. The architecture of labor market institutions must be built on two pillars: unemployment insurance and employment protection, in the form of layoff taxes. To the extent that workers receive unemployment benefits, it is essential, for efficiency purposes, that firms take

this cost into account when deciding whether to layoff workers. This requires the use of layoff taxes, a form of employment protection.

This argument is straightforward, but it is at odds with the often-heard position that the less employment protection the better. Absent layoff taxes, in our benchmark, firms would lay off more workers than is socially efficient, in effect free-riding on the unemployment benefits paid by the unemployment agency.

This basic message is general and important. The benchmark is too simple, however, in that it rules out a number of relevant imperfections in the labor market. I now consider a number of these imperfections, with an eye to refining and modifying the basic message.

2. FOUR COMPLICATIONS

The benchmark made at least four implicit assumptions. First, the unemployed can be fully insured. Second, firms can pay the layoff taxes. Third, because workers are risk averse, they are willing to accept lower wages in exchange for insurance, leading firms to offer this insurance either directly (through direct payments) or indirectly (through the unemployment agency). Fourth, all firms and all workers are the same ex ante. All four assumptions are too strong. Let me take each one in turn.

2.1 Limits to Insurance

Even if it were feasible to fully insure the unemployed, it would not be desirable to do so. The reason is well understood: if unemployment implied no loss of utility, there would be no incentives for the unemployed to search for jobs. The question is how such limits to insurance affect my earlier conclusions. A formal analysis yields two conclusions. First, laid-off workers should receive the highest feasible level of unemployment insurance consistent with search incentives. This may sound obvious, but it has practical implications for the design of unemployment insurance to which I return below. Second, layoff taxes paid by firms should exceed the unemployment benefits paid to laid-off workers. In other words, employment protection should be higher than in the benchmark. Why? Given the utility loss in becoming unemployed, it is optimal to distort the layoff decision of firms so as to decrease layoffs and, hence, the incidence of unemployment.

In short, if there are limits on unemployment insurance, it is then optimal to have higher employment protection. This inverse relation between unemployment insurance and employment protection fits the facts surprisingly well. Boeri, Conde-Ruiz, and Galasso (2003) document a clear negative relation between the generosity of unemployment insurance and the strictness of employment protection across European countries. A likely explanation is a political economy story that parallels the optimality argument above: the less generous the unemployment insurance (for whatever reason), the stronger the political pressure to put in place restrictions on layoffs and the stronger the degree of employment protection.

High employment protection is a partial substitute for unemployment insurance. It is a very poor substitute, however, because it entails strong distortions and a potentially large efficiency loss. It impedes reallocation, decreasing output and perhaps even affecting growth. This has an important practical implication. Any reform of the unemployment insurance system that delivers better insurance while maintaining search incentives is useful not only on its own, but also indirectly: it allows for a decrease in layoff taxes and thus reduces distortions.

A number of recent reforms of unemployment insurance systems offer increased benefits in exchange for stronger penalties for unemployed workers who either do not search or do not accept job offers. These efforts are promising. They relax the limits on insurance and offer the hope of reducing employment protection to a more efficient level.

2.2 Limits to Layoff Taxes

The benchmark assumed that firms were risk neutral and able to pay the layoff taxes. This assumption is too strong. Many small firms have a single owner, who is likely to be risk averse and unable to diversify the firm's risk. Even larger firms may be facing financial constraints. Layoffs, by their very nature, tend to take place when firms are not doing well. The firm may thus be unable to pay the layoff taxes. Even if the firm can pay, this may come at a high cost, perhaps forcing the firm to close other operations or preventing investment crucial to its future.

One of the things the state can do, instead of forcing firms to pay layoff taxes at the time layoffs take place, is to shift payments to times when the firm is in better financial shape. This is the principle

behind the system in place in the United States. The details vary from state to state, but essentially the unemployment agency keeps a running balance for each firm, registering the benefits that the agency pays to workers laid-off by the firm on the debit side and the firm's payments to the agency on the credit side. At regular intervals, the firm pays a proportion of the remaining balance. The lower this proportion, the longer the implied average time between the payments of benefits to the workers and the payment of contributions by the firm.

Such a system may alleviate the problem, but it is unlikely to eliminate it. Some firms may still not be in a strong financial position when the tax comes due. It may therefore be optimal for the state to impose lower layoff taxes than in the benchmark, thus decreasing the burden on firms in difficulty. If financial constraints vary systematically across types of firms, then it is better to tailor the tax rate for different categories of firms than to decrease the layoff tax rate for all firms. It may be optimal, for example, to levy a lower tax on new and young firms, which tend to be financially constrained, while leaving the rate higher for established firms.

In short, the presence of financial constraints may require a decrease in layoff taxes relative to the benchmark. The unemployment agency must still be financed, however. If layoff taxes are lower, the rest of the funds must be raised through higher payroll taxes. The overall architecture now has unemployment insurance on one side and layoff and payroll taxes on the other. Moreover, the decrease in layoff taxes implies that firms will lay off too many workers relative to the benchmark. Given the presence of financial constraints, however, this is the best that can be done.

2.3 Ex Post Wage Bargaining

The benchmark assumed that because workers were risk averse, the provision of insurance by firms (either directly or indirectly through the unemployment agency) allowed the firms to decrease wages and expected labor costs. Indeed, in the benchmark, the state did not have to force firms to join the unemployment-insurance-cum-layoff-tax system; they did so voluntarily.

This assumption raises an old issue in labor economics: namely, how wages are set. Before they are hired, risk averse workers will be willing to accept lower wages in exchange for the provision of unemployment insurance. After they are hired, however, they may want

to renegotiate wages, and by then the bargaining conditions are very different. If bargaining fails and the workers are laid off, they are now entitled to unemployment benefits and the firm has to pay a layoff tax. Both factors clearly strengthen the workers' bargaining position, so the wage may well go up.[2]

Hence, if wages are at least partly determined ex post, the provision of unemployment insurance is likely to lead to higher, not lower, wages. The same applies to layoff taxes: the higher the layoff taxes, the more expensive it is for the firm to lay off workers, which weakens the firm's bargaining position and thus raises the wage.

The precise characterization of the optimal architecture in this case depends on the details of bargaining and the characterization of the rest of the economy. Based on an analysis of some simple cases, two conclusions appear to hold quite generally. To the extent that higher unemployment benefits increase wages and therefore increase firms' costs, these benefits should be lower than in the benchmark. And to the extent that higher layoff taxes strengthen the bargaining position of workers, further increasing wages and firms' costs, layoff taxes should be lower than unemployment benefits, with the difference financed by payroll taxes.

2.4 Heterogeneity

The benchmark ignored ex ante heterogeneity of firms and workers. All jobs and all workers looked the same ex ante. This is obviously not the case. For example, some firms operate in volatile markets and so are likely to have a higher layoff rate than firms in more stable sectors. Some workers, because of individual characteristics such as lack of work experience, represent a greater risk to the firm than do others, and they are more likely to be laid off. This heterogeneity has implications for the design of tax rates.

I focus here on worker heterogeneity; parallel arguments can be extended to the case of firm heterogeneity. When firms have to pay high layoff taxes, they are reluctant to hire workers whom they may have to lay off. Depending on how wages are set, these high-risk workers may have to accept lower wages in order to be hired or may simply not be hired at all.

---

2. This effect is well captured by the assumption of Nash bargaining in modern flow-bargaining models (as presented, for example, in Pissarides, 2000), but it is clearly more general than this particular class of models.

Decreasing layoff taxes below unemployment benefits can help alleviate the bias against these high-risk workers. Again, specific groups of workers should be targeted. For example, the tax structure may provide preferential treatment for new entrants—workers without a work history. If firms that lay off new entrants are subject to lower layoff taxes, this reduces their incentives to discriminate against new entrants in hiring. In addition, contracts might include a trial period during which either workers or firms can separate at no cost, allowing both parties to assess the quality of the match before layoff taxes enter into force.

2.5 Taking Stock

The benchmark established a simple architecture, with full unemployment insurance on one side, employment protection on the other side, and layoff taxes equal to unemployment benefits. A closer look suggests a number of amendments. Limits to insurance point to increasing layoff taxes relative to the benchmark. Financial constraints suggest instead decreasing layoff taxes relative to the benchmark. Ex post bargaining suggests decreasing both unemployment benefits and layoff taxes. Heterogeneity suggests treating different categories of firms or groups of workers differently—for example, by applying lower layoff taxes to young firms and new workforce entrants or by introducing a trial period when neither unemployment benefits nor layoff taxes apply.

All these amendments take the form of changes in the level of unemployment benefits, or in the level and composition of taxes. One issue I have not discussed is the role of judges in the process. This is an important issue, since employment protection has an important judicial component in most countries. To think about it, it is important to introduce the distinction between layoffs and quits. Not all separations are layoffs; many are quits, triggered not by a change in the productivity of the job, but by the offer of another job to the worker or by increased worker dissatisfaction with the current job. To the extent that firms only pay layoff taxes and workers only receive unemployment benefits in the case of a layoff, this opens the scope for games between firms and workers. Firms that want to layoff a worker may harass the worker into quitting in order to save on the layoff tax. Workers who want to quit may misbehave so as to be laid off, thus getting unemployment benefits. If layoff taxes are less than unemployment benefits, this opens the possibility of another set of

games, this time with workers and firms on one side and the state on the other. Workers and firms may collude and declare quits to be layoffs, getting a net subsidy from the state.

In all these cases, the incentives to misbehave depend on the generosity of benefits and the level of layoff taxes. Judges must clearly be involved in cases of disagreement between firms and workers. If, however, a firm is willing to declare a separation a layoff and pay the layoff tax, there is no obvious reason for judges to become involved and potentially overturn the decision of the firm or require additional payments. I insist on this last point because in many countries, judges can and do second guess firms' decisions to layoff workers, thereby introducing substantial uncertainty and arbitrariness in the process. Layoff taxes are a much better instrument for forcing firms to face the implications of their layoff decisions.

Let me wrap up this section. The complications I have explored may lead some readers to reject the whole architecture—to give up on state-provided insurance so as not to have to confront the issues of financing. I return to the issue of self-insurance below, but I am quite sure this conclusion is wrong. Optimal tax and insurance systems are, by their nature, complicated. This is no reason to reject them in toto, just as the complexity of the tax system does not justify eliminating government spending. The goal must be to provide insurance at the smallest cost in terms of efficiency. The message from this and the previous section is that the basic architecture needed to do so is a simple combination of unemployment insurance and employment protection. The details are complex and must be carefully worked out, but this should not obscure the basic architecture.

3. Two Issues of Relevance to Latin America

This section takes up two issues that appear particularly relevant in the context of labor market reforms in Latin America. The first is the role of severance payments, while the second is the role of self-insurance by workers and of mandatory unemployment accounts.

3.1 Severance Payments

So far, I have described a system based on unemployment benefits combined with layoff (and possibly payroll) taxes. I have not mentioned severance payments—direct payments from firms to workers at the

time of separation. The two central issues with regard to severance payments are whether they can serve as an alternative to the system I have described and whether they might play a role of complementing unemployment insurance within that system.

As for the first issue, severance payments are a very poor alternative to the system I have described. The basic reason was addressed in the discussion of the benchmark. Severance payments provide very poor insurance against the main source of uncertainty associated with unemployment, namely, unemployment duration. Some economists argue that lump-sum payments such as severance payments provide strong incentives for the unemployed to search for another job. Indeed they do, but this comes at the cost of very poor insurance. Any need to provide search incentives is better accomplished by a benefit schedule in which unemployment benefits decrease with the duration of unemployment.

The analysis presented above provides other arguments against severance payments as unemployment insurance. As we have seen, financial market imperfections may make it optimal to have lower layoff taxes, while providing unemployment insurance to the workers. This is easily done in a system in which unemployment insurance is financed partially by layoff taxes and partially by payroll taxes. It is impossible under severance payments, however, where by construction payments by firms are equal to the benefits received by workers. Also, some firms may simply go bankrupt. Under severance payments, workers bear the bankruptcy risk and may thus get nothing. In the presence of unemployment insurance, the risk is taken on by the unemployment agency, so workers can still receive unemployment benefits.

Nevertheless, severance payments should still be considered as an alternative to unemployment insurance plus layoff taxes when a country is at an early stage of institutional development. Running an unemployment agency—from keeping track of the employment status of workers to monitoring search activity and distributing benefits—is a complex operation. In countries with limited institutional capacity, severance payments may be the best that can be done, despite their shortcomings. As such countries develop, they should move from a system based on severance payments to one based on unemployment benefits and layoff taxes. One of the political challenges in such a transition is how to decrease severance payments while introducing unemployment insurance—an issue relevant for Chile. If unemployment insurance is introduced and severance payments are not reduced roughly in proportion, the outcome may prove very inefficient.

This brings me to the second issue, of whether severance payments have a place within the system of unemployment insurance and layoff taxes. The answer is probably yes. Losing a job involves two different costs. The first is the cost of being unemployed for some time, which depends on how long one is unemployed. The second is the cost of becoming unemployed, which is incurred even if another job is found right away. This is a psychic cost involving the loss of a network of workplace friends, the loss of self-esteem, and so on, and it can be substantial, especially for workers with high seniority.

Two characteristics of this psychic cost are relevant here. First, it can be assessed at the time of separation. This implies that in contrast to the first cost, it can be largely compensated by a one-time payment, that is, by severance payments at the time the layoff takes place. Second, it is likely to be a function of seniority. The longer the worker has been in the firm, the higher the psychic cost of losing a job. This suggests that the payment should be increasing, perhaps even convex, in seniority.

Thus while severance payments are an inferior way of delivering unemployment insurance, they may be justified as partial compensation for the loss associated with losing a long-held job. This points to a complementary role for limited severance payments, increasing in seniority, in addition to unemployment insurance.

3.2 The Role and Scope for Self-insurance

Given the distortions associated with any realistic system of state-provided unemployment benefits, one may ask whether it would not be better simply to rely on self-insurance by workers, so as to avoid all these problems. By self-insurance, I mean the accumulation of sufficient precautionary saving by workers to be used if and when they become unemployed. Jean and I have just started working on this set of issues, so what follows is speculative.

Self-insurance clearly alleviates some of the problems discussed above. Consider an economy in which some insurance comes from self-insurance by workers and some insurance is provided by the state. A strong reliance on self-insurance reduces some of the moral hazard problems discussed earlier: when workers self insure, they have strong incentives to search for jobs should they become unemployed. Self-insurance also reduces the gap between ex ante and ex post wage setting and thus reduces expected costs for firms.

Self-insurance is not sufficient on its own, however, and cannot provide a full substitute for state-provided insurance. Compare saving

for retirement and saving for unemployment. The time of retirement is roughly known in advance; it is a long way away when one starts his or her working life, and it is thus easy to plan for. In contrast, unemployment is uncertain; it often comes early in working life (indeed often at the very start), when workers have not accumulated substantial funds. In short, while one may well want to rely on individual retirement saving, the arguments do not carry over to individual unemployment saving. Without state-provided insurance, some of the unemployed are likely to have insufficient funds to maintain an adequate level of consumption.

In practice, existing individual unemployment account systems always include some additional state-provided insurance, for example, allowing unemployed workers to borrow up to some ceiling, either directly from the state or from financial institutions through a state guarantee. These additional provisions raise many of the same issues discussed earlier. How much should the state provide or guarantee, and in what form? How does the state ensure that firms internalize the cost of these guarantees, thereby motivating them to take efficient layoff decisions? I do not yet know the answer to these questions, but the optimal architecture probably includes some self-insurance by workers, within a system of state-provided unemployment insurance and layoff taxes.

4. Some Conclusions

I end by stating a number of broad conclusions, probably with more conviction than is warranted.

4.1 Social Protection and Efficiency

Countries can provide high social protection to workers, without large sacrifices in efficiency. This requires three main tools:

— The provision of unemployment insurance through an unemployment agency. Benefits can be generous, but they must be conditional on active search and job-taking. The idea of requiring the unemployed to take "acceptable jobs" or lose benefits is appealing, and it underlies reforms in many European countries. In principle, it provides insurance contingent on the state of the labor market. If there are truly no jobs, the unemployed continue to receive benefits, as they should. If there are jobs and the unemployed do not

take them, they lose benefits, as they should. In practice, however, it is difficult to define what constitutes an acceptable job and to enforce the conditional receipt of benefits.

— Employment protection, in the form of layoff taxes rather than judicial intervention.

— Reliance on a negative income tax rather than on a minimum wage to ensure that even low-productivity workers have an adequate level of income. A minimum wage should be set to avoid the worst cases of exploitation by firms, but it should be a true minimum, rather than a living wage. If the productivity of the lowest-productivity workers is less than is needed for them to live decently, the difference must be made up by the state, not through the imposition of a minimum wage.

4.2 The Sins of Europe

In light of the characterization of good labor market institutions described in this paper, many European countries committed three sins. First, they often chose open-ended unemployment benefits or assistance, and, for some categories of workers, chose very high replacement rates (defined as the ratio of after-tax benefits to after-tax wages); this creates few incentives for some of the unemployed to look for work. Second, they established heavy judicial and administrative employment protection. Nearly all European countries finance unemployment benefits through payroll rather than layoff taxes, which, by itself, would lead to excessive layoffs. This is offset, however, by high judicial and administrative employment protection. In many countries, judges can second-guess and overturn the decision of a firm to layoff workers. This should not be the case. Third, they relied too heavily on the minimum wage rather than a negative income tax.

In most of these countries, reforms are taking place at all three margins. The highest replacement rates have been reduced. New labor contracts have been introduced, subject to simpler and more limited employment protection.[3] Many countries have introduced some form of a negative income tax. There is still a long way to go, but the movement is in the right direction.

---

3. The existence of two types of contracts, some with limited protection and some with full protection, raises other issues, but this is a topic for another time. See, for example, Blanchard and Landier (2002).

4.3 Lessons from the Unemployment Miracles

In some countries, unemployment has either remained low (in Sweden, for example, except for a sharp cyclical upturn in the early 1990s) or declined dramatically after increasing in the 1970s and 1980s (for example, in the Netherlands). These countries have achieved low unemployment without dramatic labor market reforms. They have eliminated excesses, but continue to offer high levels of social protection, even relative to the European average. Institutional reforms probably played some role in the decrease in unemployment. Wage moderation was a major factor, however, and this is not easily explained by changes in institutions. It seems mostly to reflect the attitudes of unions in collective bargaining.[4] In countries where collective bargaining is important, good labor relations, trust between unions and firms, and some form of wage coordination both seem essential to maintaining low unemployment in the face of major adverse shocks.

4. I draw here on Blanchard and Phillipon (2003), with apologies for yet another self reference.

References

Boeri, T., J.I. Conde-Ruiz, and V. Galasso. 2003. "Protecting against Labor Market Risk: Employment Protection or Unemployment Benefits?" Discussion paper 834. Bonn: IZA.

Blanchard, O. 2002. "Designing Labor Market Institutions." Paper prepared for the conference Beyond Transition: Development Perspectives and Dilemmas. Warsaw, 12–13 April (available at web.mit.edu/blanchar/www/).

Blanchard, O. and A. Landier. 2002. "The Perverse Effects of Partial Labor Market Reform: Fixed-term Contracts in France." *Economic Journal* 112(480): 214–44.

Blanchard, O. and T. Philippon. 2003. "The Decline in Rents and the Rise and Fall of European Unemployment." MIT. Mimeographed (available at web.mit.edu/blanchar/www/).

Blanchard, O. and J. Tirole. 2003. "Contours of Employment Protection Reform." Working paper 03-35. MIT, Department of Economics (available through the Social Science Research Network).

————. 2004. "The Optimal Design of Labor Market Institutions." MIT. mimeographed (available at web.mit.edu/blanchar/www/).

Pissarides, C. 2000. *Equilibrium Unemployment Theory.* MIT Press.